



Utah Governor's Office *of* Economic Development

Outdoor Products & Recreation



BUSINESS RESOURCE CENTERS ■ CAPITAL FORMATION ■ CENTERS OF EXCELLENCE ■ CORPORATE INCENTIVES UTAH ■ UTAH FILM COMMISSION ■ INTERNATIONAL DEVELOPMENT OFFICE ■ OFFICE OF CONSUMER HEALTH SERVICES ■ PROCUREMENT ASSISTANCE ■ OFFICE OF RURAL DEVELOPMENT ■ STATE SCIENCE ADVISOR ■ UTAH OFFICE OF TOURISM



Utah Governor's Office *of*
Economic Development

UTAH
LIFE ELEVATED

ACTIVE OUTDOOR RECREATION

Contributes \$5.8 billion annually to Utah's economy

Supports 65,000 jobs across Utah

Generates nearly \$300 million in annual state tax revenues

**Produces nearly \$4 billion annually in retail sales and services across Utah —
accounting for almost 5% of gross state product**



Utah Governor's Office of
Economic Development

UTAH
LIFE ELEVATED

Cluster Strategy & Out Comes

Promote Utah as “Place” for Outdoor Business

Target segments of Outdoor Industry

Visit Outdoor business in the state

Bicycle. Ski, Climbing, Camping

Recruit quality Outdoor companies

Involve various stake holders in Outdoor Ind

Local officials

Outdoor organizations & committees

Recent wins: Amer, Rossignol, Ortovox, QBP



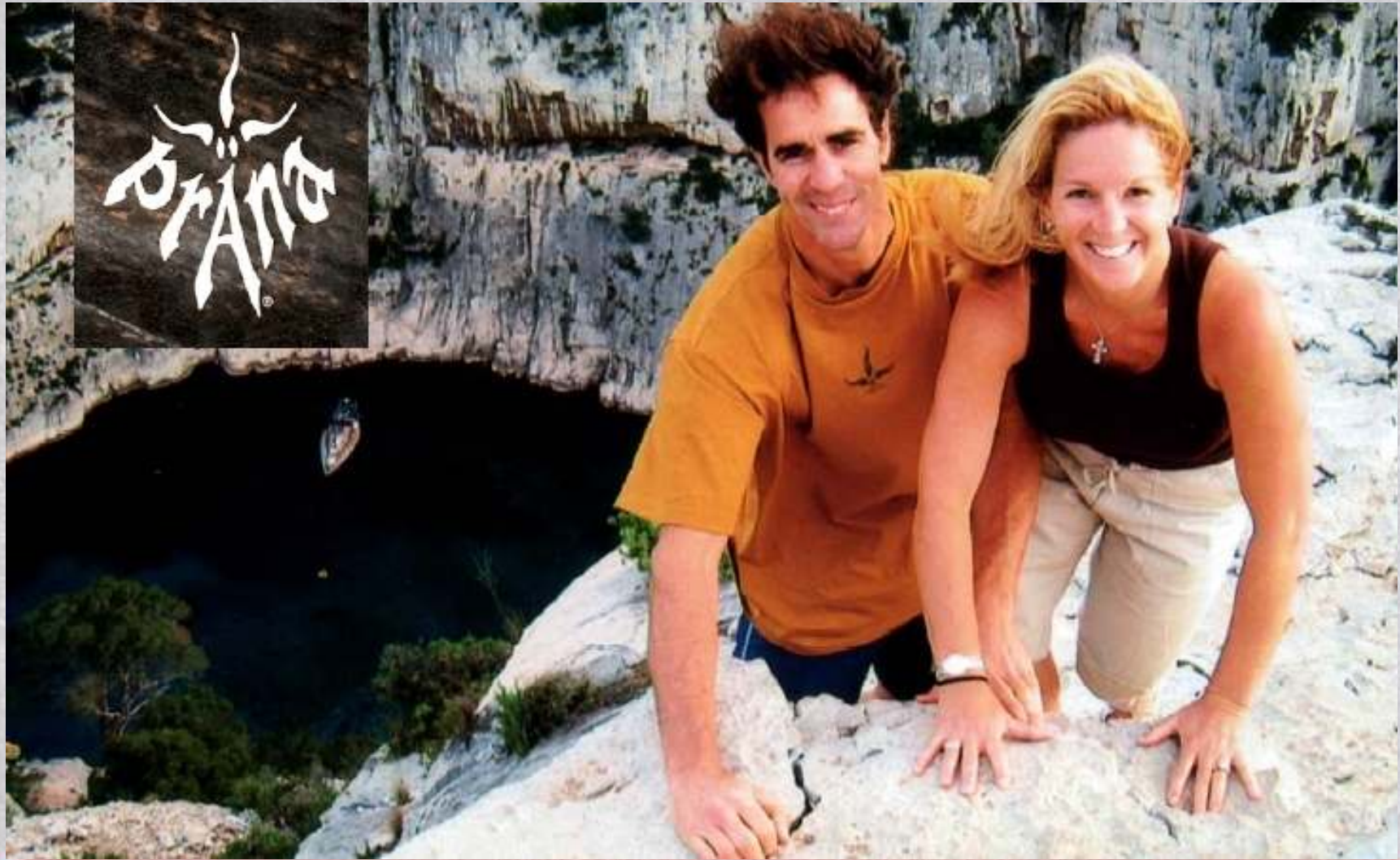
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Utah Bicycle Industry Group



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Eco-Working Group (EWG)

Formed in 2007 to explore issues of **environmental sustainability** related to the **outdoor industry**.

Purpose: support a world where we live, recreate and do business in harmony with our land, air, water and communities.

Vision: finding solutions, improve our environmental footprint and protect our valuable earth for future generations.

Mission: develop environmental impact evaluation tools, programs, education and communication to stakeholders and consumers that will direct product life cycle and informed purchasing decisions.

146 Member Companies and Organizations

(Voting and Non-voting)

New Balance

Nike

Brooks Sports

Keen

Timberland

Patagonia

Chaco

GoLite

Merrell

EPA

Sugoi

Levi Strauss & Co.

Outdoor Research

The North Face

REI

3M

W.L. Gore

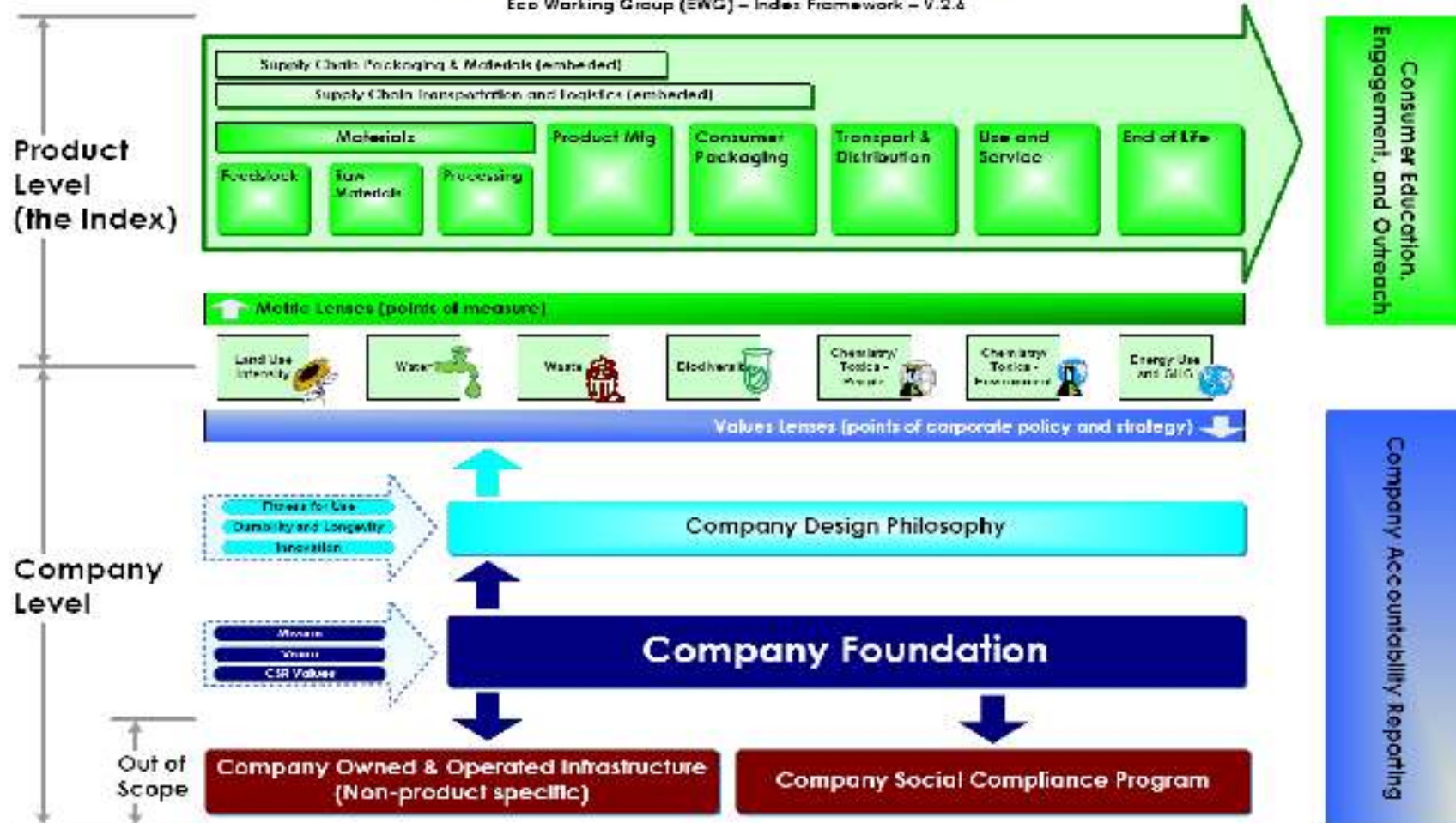
**Bonneville Environmental
Foundation**

Zero Waste Alliance

EWG – Index Framework

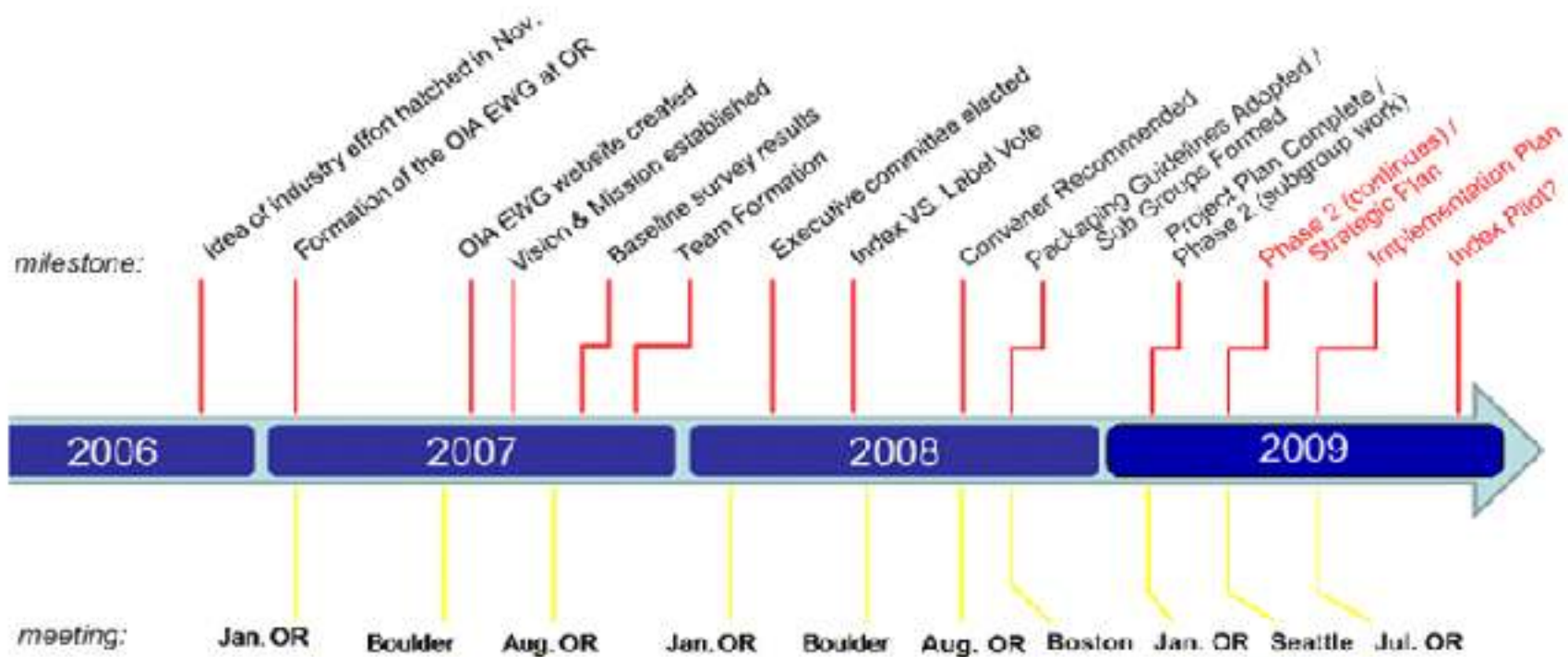
"Product Eco-Benchmarking Toolkit"

Eco Working Group (EWG) – Index Framework – V.2.6



Timeline and Navigation

Eco Index Major Milestones



EWG Packaging Team Work Plan

PACKAGING GUIDELINES

- qualitative principles and/or best practices to be used as an educational tool, promoting continuous improvement for companies and suppliers

METRICS & INDICATORS

- to be used to assess environmental impact and measure improvement

SCORECARD

- standardize scoring methodology to benchmark, drive continuous improvement, and aid in decision making



METRIC - MATERIAL USE

Substrate - Paper
(kg) used in unit of pkg






+



=




Intro to Packaging Engineering



design objective	key question	examples of strategy
 technical performance	<i>does the package protect the product?</i>	<ul style="list-style-type: none">» balance need with over-engineering» consider the whole packaging system» design for probable scenarios not worse case» research new technologies
 cost	<i>is the design cost-effective?</i>	<ul style="list-style-type: none">» align the cost with target market & margins» use materials and energy efficiently» amortize cost over lifecycle
 appearance	<i>does the design communicate effectively?</i>	<ul style="list-style-type: none">» rethink assumptions» design for communication» weigh consequences

Intro to Packaging Engineering



design objective	key question	examples of strategy
 optimize resources	<i>does the design optimize materials and energy?</i>	<ul style="list-style-type: none">» practice source reduction» use recycled content» design for transport
 responsible sourcing	<i>has the material been produced and delivered responsibly?</i>	<ul style="list-style-type: none">» design with environmental best practices» design with fair labor trade practices» design with virgin renewable materials from a certified managed source (FSC)
 resource recovery	<i>where will the materials go after use?</i>	<ul style="list-style-type: none">» design to be disassembled» design for reuse» design for recycling



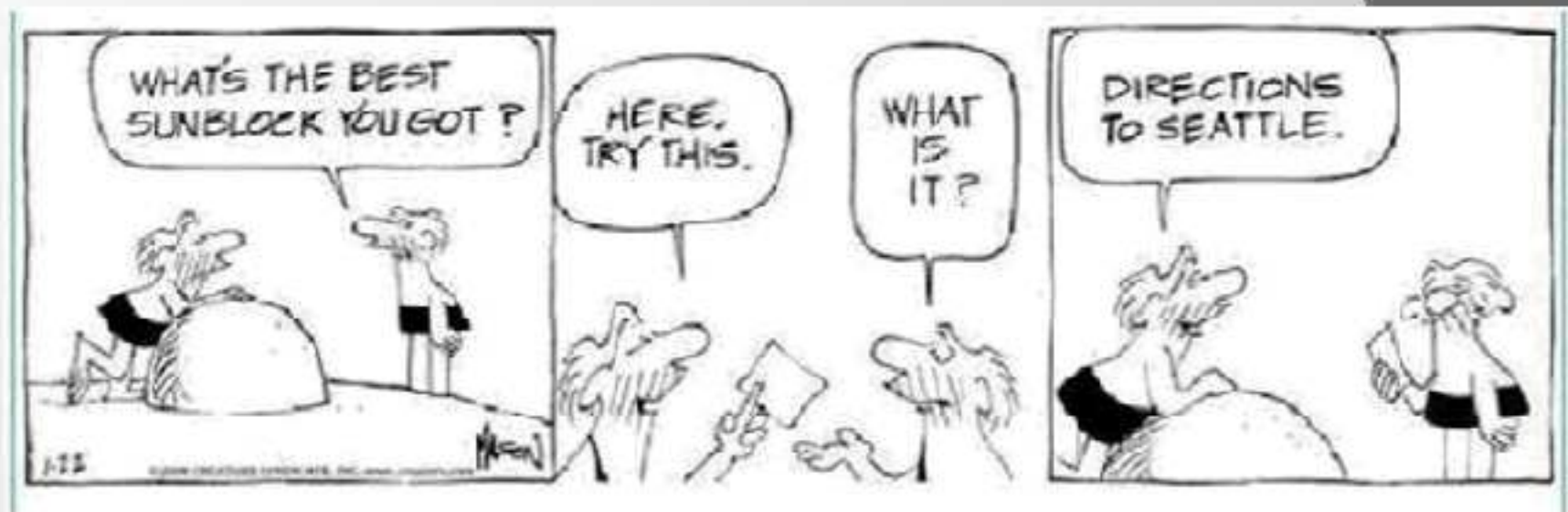
REI Gear & Apparel
re-thinking packaging

Eric Abraham
REI Packaging Manager

MAY 2009



re-thinking packaging



Gear and Apparel
The gear you need to do what you love.

NOVARA
Never a bad time to ride

REDESIGN

In the year....2010

PACKAGING DESIGN





Sustainable Packaging Design Principles & Guidelines

REDUCE

- ❑ Do we need it?
- ❑ Minimize **material usage** or **eliminate packaging** completely
- ❑ Use **single materials**; avoid laminates or multiple materials
- ❑ Substrates shall be **separable** without the use of tools
- ❑ **Minimize size** of packaging (reduce shipping space)
- ❑ Examine the **package-to-product** ratio



Sustainable Packaging Design Principles & Guidelines



REDUCED

38%
less paper



Sustainable Packaging Design Principles & Guidelines



Light weight & innovate:

reduce the amount of paperboard being used.

use existing product features to merchandise.



Sustainable Packaging Design Principles & Guidelines



REDUCED

75%
less paper



Sustainable Packaging Design Principles & Guidelines



**Light weight &
innovate:**

Sell the product;
...not the packaging.



Sustainable Packaging Design Principles & Guidelines



REDUCED

55%

less paper



Sustainable Packaging Design Principles & Guidelines



Evaluate
and audit the
pack method
from the vendor...



Sustainable Packaging Design Principles & Guidelines



REDUCED

20%
empty space



Sustainable Packaging Design Principles & Guidelines



REDUCED

Use only what
is **needed**...

...a **label** for the
stuff sack.



Sustainable Packaging Design Principles & Guidelines



REDESIGN

How can we reduce our
bicycle packaging...

What's inside
the **box**?



Sustainable Packaging Design Principles & Guidelines



REDESIGN

How can we reduce our
bicycle packaging...

What's inside
the **box**?



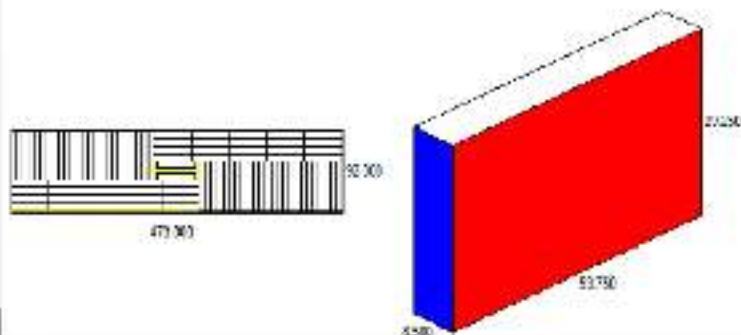
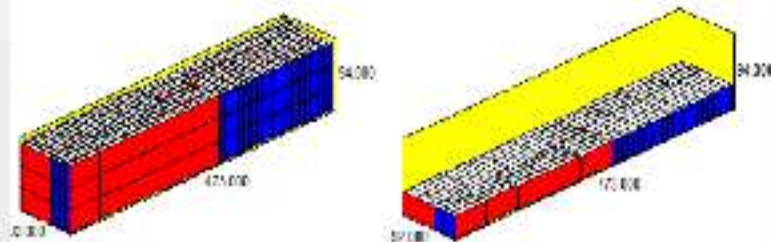
Sustainable Packaging Design Principles & Guidelines

Current:

270 Units per Container

Cube Used	88.2 %	90	Cube / Layer
Area Used	84.5 %	3	Layer / Load
Pallet type	ppallet	270	Cube / Load

	Length	Width	Height	Vol	Gross
Case (OD)	53.750	8.500	28.250 in	10.000	10.000 lb
Product	472.750	87.750	87.750 in	2700.000	2700.000 lb
Load	473.000	88.000	88.000 in	2700.000	2700.000 lb

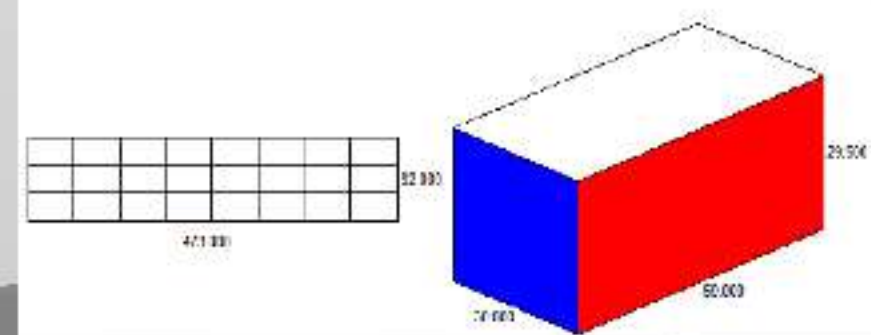
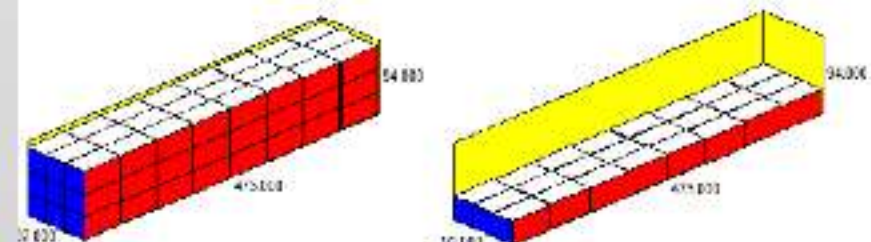


New Design:

288 Units per Container

Cube Used	91.9 %	74	RKT Rowspan / Layer
Area Used	97.6 %	3	Layer / Load
Pallet type	ppallet	72	RKT Rowspan / Load

	Length	Width	Height	Vol	Gross
RKT Rows (OD)	59.000	20.000	28.500 in	10.000	10.000 lb
Product	472.000	90.000	88.500 in	288.000	288.000 lb
Load	473.000	92.000	88.000 in	288.000	288.000 lb





Sustainable Packaging Design Principles & Guidelines

RESOURCES

SUSTAINABLE MATERIALS

- ❑ Maximize use of **post consumer recycled content**, agricultural waste or textile scrap
- ❑ **Maximize** use of sustainable materials
- ❑ Use materials with **high recyclability** rates
- ❑ Identify **all packaging** being used your our vendors



Sustainable Packaging Design Principles & Guidelines

Buy responsibly...
Buy FSC*



100%

See www.fsc.org for FSC 100% label requirements. For more information, see the FSC website or contact FSC at 1-800-468-5869.



Recycled

See www.fsc.org for FSC Recycled label requirements. For more information, see the FSC website or contact FSC at 1-800-468-5869.



Mixed Sources

See www.fsc.org for FSC Mixed Sources label requirements. For more information, see the FSC website or contact FSC at 1-800-468-5869.



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Support responsible management
of the world's forests.

AMERICAN
PAPER
INDUSTRY
ASSOCIATION

* For more information, see www.fsc.org for FSC 100% label requirements. For more information, see the FSC website or contact FSC at 1-800-468-5869.

RESOURCES

Define the “unknown”,
Use **certified** substrates.



Sustainable Packaging Design Principles & Guidelines

REUSE

- Create packaging to be **reused** within your company infrastructure (retail stores, DC, vendors, etc.)
- Design consumer packaging that has **alternative use**

If creating reusable packaging consider the following:

How many customers will actually reuse packaging versus throwing it away?



Sustainable Packaging Design Principles & Guidelines



REUSE

Shipping Boxes are reused in-between our distribution center and retail stores.



Sustainable Packaging Design Principles & Guidelines



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Shipping Boxes are reused in-between our distribution center and retail stores.



Sustainable Packaging Design Principles & Guidelines



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Shipping Boxes are reused in-between our distribution center and retail stores.



Sustainable Packaging Design Principles & Guidelines

RECYCLE

- Create packaging compatible with recycling systems

Ask: Can a person in the average city recycle this at home or at retail stores?

- Use only a single material/substrate

Multiple materials reduces recyclability of packaging.

- Avoid laminates, films, wax, additives, and coatings
- Avoid pressure sensitive adhesives, closures, foil stamps, aluminum tags, etc.
- Avoid metallic, UV-cured or fluorescent inks

Why? They also contaminate the recycle process.



Sustainable Packaging Design Principles & Guidelines

RECYCLING

If creating recyclable packaging:

*Educate via the graphics and clearly label for **end of life**.*

*Packaging shall declare the approximate **recycled content** for each material*

*Recyclable packaging needs to be **recovered** to guarantee that it is recycled.*



Disposal & End-of-Life Labeling

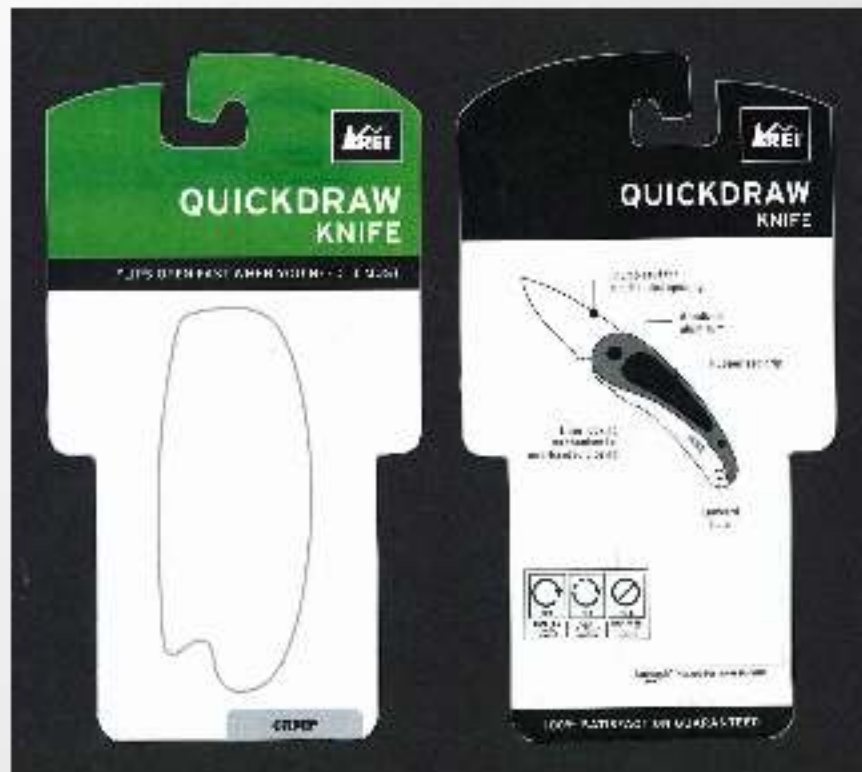


RETHINK

**What materials
are used
for a
multi-tool?**



Disposal & End-of-Life Labeling



RETHINK

**What materials
are used
for a
multi-tool?**

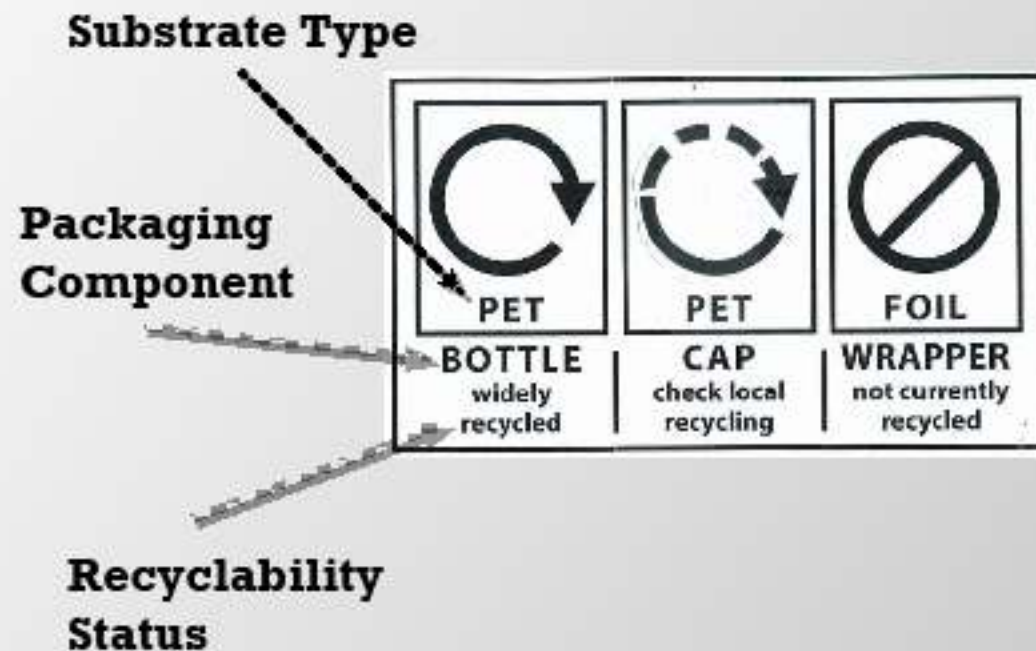


Disposal & End-of-Life Labeling

PRODUCT LABELING

CARD
BLISTER

paper - widely recycled
plastic - check local area





Sustainable Packaging Design Principles & Guidelines

RETHINK & REDESIGN

- ❑ Define the “**unknown**” - learn your packaging substrates’ chain of custody.
- ❑ Address the **recloseability** in a package’s design.
- ❑ The vendor may be **overcharging** for their packaging.
- ❑ Reduce where packaging is **excessive**.
- ❑ **Educate** on **recycling** our products’ packaging whenever possible.
- ❑ **Innovation** - do we need the packaging at all?